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62,41
NEW
STANDARD
BERRIES

BERRYDALE EXPERIMENT GARDENS
HOLLAND MICHIGAN

62,41
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U. S. Department of Agriculture.

SEVENTY-FIVE GIANT
HIMALAYA BERRIES
ON A TWELVE INCH BRANCH

Mitting's Strain of Whinham's Gooseberry



AS large as an English Walnut—the largest ket, shortly before fully ripe, the color is low it is clear red. Flavor rich and grapy, and jams, cans especially well. Our plants made have a sign of mildew or disease, nor are they Gooseberry you can grow. Without exception, All said it was decidedly the most attractive year-old plants, grown on single stems, with Mitting's Golden Drop Gooseberry is shown cover. Turn to it.

Gooseberry known. When picked for early mar- creamy green, but when left on plant until mel- very sweet. Fine for dessert, extra good in pies an extra-strong growth this year, and do not damaged by insects. This is the finest all-round visitors who saw our bushes left orders for plants. Gooseberry they had ever seen. Extra-strong, two- bushy tops—Mitting's selected superior strain. in full colors, and fully described, on inside of back



OF SPECIAL INTEREST TO YOU

REGARDING TRANSPORTATION CHARGES. When cash comes with the order, we will prepay transportation charges on from 1 to 12 plants by mail, one variety or assorted. On over 12 plants, you pay the charges, by mail, express, or freight. On account of the tremendous demand for Himalaya Berry Plants, we ask that you send YOUR order now. Last year many of our friends who ordered late were disappointed.

Cash Prizes This Year. For best reports on plants bought from us in the spring of 1910, 1911 or 1912, to reach us by November 1, 1912, we will send our checks as follows: First prize, \$25.00; second prize, \$10.00; and third prize, \$5.00. Reports must be witnessed by three neighbors, who see the plants, and, if possible, you must send a good photograph of the plants.

Last Year's Prizes. J. L. Sims, Buntyn, Tenn., reported a growth of his Himalaya Vine, bought from us spring of 1911, of 33 feet, 2 inches. His report was witnessed by three neighbors—H. P. Seruggs, E. A. Puyle and J. T. Mason. We sent him a check for \$25.00.

Among other reports that came in were these: George R. Gamble, Grant Park, Illinois, reported a growth of 19 feet last summer; George D. Harrison, Lakeville, Connecticut, reported 18 feet, 8 inches; John G. Cargill, 2512 Clybourn Street, Milwaukee, 19 feet, 3 inches; E. E. Camplin, Jamestown, Indiana, 19 feet, 10 inches; Aug. F. Thiede, Two Rivers, Wisconsin, 15 feet, 2½ inches; Ben T. Gray, Borden, Arkansas, 30 feet; C. O. Reed, Moshkonong, Missouri, 28 feet, 5 inches; C. Zeedyk, R. F. D. No. 1, Holland, Michigan, 26 feet, 2 inches.

BERRYDALE EXPERIMENT GARDENS, Holland, Michigan

How We Do Business

The Prices given here are net, cash with order, for the numbers stated. We will, however, quote special prices on large quantities. Remittance should be made payable to A. Mitting, Prop. At all times money should be sent with order. This enables us to make lower prices and to give more prompt and better service than would be possible if terms were otherwise. Besides, we like to pull weeds better than to write, and it is hard work for us to keep books.

Shipments will be made as soon as plants or trees are dug in the fall, or we can hold your order till spring, if desired. We ship by express or freight collect, unless otherwise directed, or unless something to the contrary is stated in our letters or in this book. We will ship by mail if 10 per cent is added to our prices.

Guarantee. Every plant that leaves Berrydale is a thrifty, lusty specimen. If any customer is not satisfied in every way with what he bought from us, we will see that he promptly gets what will satisfy him. We do business on a square-deal plan—see that all of our customers get good plants that will succeed if treated right after they leave us. Just to illustrate, we sometimes send single plants by mail. We pack these so that they require five cents postage, where the general practice of hundreds of shippers is to pack so lightly that but one cent is required. Our heavy shipments are packed fully as well.

Our plants must reach their destination in good condition. We guarantee safe arrival of everything we send out. Out of all the thousands of orders we sent out in the spring of 1911, we have had only ten complaints.

Samples. A sample of ripe fruit of any variety we have will be sent in season, to any applicant. The charge is 10 cents for each kind. Berries will be properly put up in alcohol for demonstration at \$2.50 for each sample, which just covers the cost. We must have the order for these samples not later than May 1 of each year. Seeds of nearly all our berries can be supplied at 10 cents per 100 seeds.

Note. No order for less than 1,000 plants of any one variety will be accepted from China, Japan, Australia, India or Europe.

Address all communications to

BERRYDALE EXPERIMENT GARDENS

Holland, Michigan

A. MITTING, Proprietor. R. No. 1, Box 5400

These Prices Cancel All Previous Quotations

6 plants at doz. rate; 50 at 100 rate; 500 at 1,000 rate

HIMALAYA BERRY.

	Each	Doz.	100	1,000
Giant Himalaya. 6-months.	\$0 20	\$2 00	\$5 00	\$40 00

GOOSEBERRY.

Mitting's Whinham. 2-year.	25	2 00	12 00	100 00
Mitting's Golden Drop. 2-year.	25	2 00	12 00	100 00
Mitting's Green Gage. 2-year.	50	4 00		
Downing Best Standard. 2-year	20	1 50	7 00	60 00
Pearl. 2-year.	20	1 25	6 00	50 00
Transparent. 2-year.	20	1 25	6 00	50 00

CURRENTS.

Perfection. Best red; 2-year.	20	1 60	10 00	75 00
Cherry. Fine red; 2-year.	20	1 25	6 00	50 00
Fay's Prolific. Red; 2-year.	15	1 00	5 00	40 00
Northern Star. Red; 2-year.	15	1 00	5 00	40 00
Pomona. Red; 2-year.	15	1 00	5 00	40 00
Red Dutch. Red; 2-year.	15	1 00	4 00	35 00
Red Cross. Red; 2-year.	15	1 00	4 00	35 00
White Dutch. 2-year.	20	1 00	5 00	40 00
Black Champion.	25	1 25	6 00	50 00
Black Naples.	25	1 25	6 00	50 00
Black Victoria.	25	1 25	6 00	50 00
Black Biskoop Giant.	25	2 00	12 00	100 00

LARGE SPECIMEN PLANTS.

	Each	Doz.
Himalaya Giant. 2-years, cut back to 2 feet.	\$1 00	\$10 00
Mitting's Whinham Gooseberry. 3-years	50	5 00
Mitting's Golden Drop Gooseberry. 3-years	50	5 00
Biskoop Giant Black Currant. 3-years	50	5 00
Tree Currants, and Gooseberries. Bushy tops; 2-years	1 50	10 00

RASPBERRY.

	Each	Doz.	100	1,000
Shepherd's Pride. Red.	\$0 50	\$1 50	\$10 00	
Eaton. Red.	60	2 00	15 00	
St. Regis. Red; new.	1 00	5 00	50 00	
Perfection Red. Fine; new.	1 00	3 00	25 00	
Cuthbert. Red.		1 00	5 00	
Thompson's. Red.		1 00	5 00	
Miller's. Red.	1 00	1 00	5 00	
Superlative. Red.	\$0 10	1 00	3 00	25 00
Berrydale. Red.	25	2 00	12 00	100 00
Mitting's Yellow Superlative.	50	4 00		
Golden Queen. Yellow.	15	1 00	3 00	25 00
Plum Farmer. The best; black.	50	1 50	10 00	
Cumberland.	40	1 25	8 00	
Cardinal. Black.	50	1 50	10 00	
Gregg. Black.	25	1 00	5 00	
Palmer. Black.	25	1 00	5 00	

BLACKBERRIES.

	Doz.	100	1,000
Eldorado. The best early.	\$0 60	\$1 75	\$12 00
Mersereau.	60	1 75	12 00
Blower.	60	1 75	12 00
Early Harvest.	40	1 25	8 00
Lucretia (Dewberry).	40	1 25	7 00
Mammoth Blackberry. Hardy in South.	each, 10 cts.	1 00	3 00
			25 00

RHUBARB.

Wagoner's Hardy Giant Crim-son	Each	Doz.	100	1,000
	\$0 25	2 00	12 00	100 00
Burbank's Crimson Winter.	12	1 00	6 00	50 00
Linnæus. 2-year.		1 00	4 00	30 00
Victoria. 2-year.		1 00	4 00	30 00
Queen. 2-year.		75	3 25	25 00

ASPARAGUS.

Columbian. 2-year.	25	75	5 00
Conover's Colossal. 2-year.	25	70	4 00

STRAWBERRIES. The cream of over 200 varieties. These are the winners after testing all.

King Edward. Finest in the United States.	25	100	300	500	1,000
	\$0 25	\$0 75	\$1 75	\$2 75	\$5 00
Brandywine. Per.	15	50	1 00	1 75	3 50
Gandy. Per.	15	50	1 00	1 75	3 50
Glen Mary. Per.	15	50	1 00	1 75	3 50
Pride of Michigan. Per.	15	50	1 00	1 75	3 50
Senator Dunlap. Per.	10	40	80	1 25	2 50
Warfield. Imp.	10	40	80	1 25	2 50

GRAPES. 1-year Vines.

	Doz.	100	1,000
Concord.	\$0 65	\$2 50	\$20 00
Moore's Early.		75	3 50
Niagara.		75	3 50

THE CREAM OF TREE FRUITS. We handle the highest grade of trees only. True to name, healthy and vigorous. All 1-year-old.

	10	100	1,000
Apple, McIntosh. Red.	\$2 50	\$25 00	\$250 00
Peach, Mayflower. 3 to 5 feet.	1 50	12 50	100 00
Pears, Bartlett.	1 75	15 00	110 00
Cherry, Black Tartarian.	1 75	15 00	110 00
Plum, Burbank.	2 00	18 00	110 00

ROSES. For Hedges.

	Each	100	500	1,000
Dorothy Perkins. Shell pink.	\$0 05	\$5 00	\$25 00	\$50 00
White Dorothy Perkins.	05	5 00	25 00	50 00
Lady Gray. White, pink flush.	05	5 00	25 00	50 00
Blue Rambler.	05	5 00	25 00	50 00

Greetings to Our Friends

Lovers of good fruits: Another season has passed and we wish to thank you all for keeping us so busy. From all our shipments last season, we got only ten kicks, which makes us feel unusually good—so good, indeed, that we have put our prices at the lowest notch for which good plants can be grown.

The past season has been rather dry. This makes our stock all the better, because it grows more hardy, with less sap and the wood ripens more thoroughly. Our large Himalaya plants gave us a good crop of fruit for their age, and these berries were shipped to parties all over the United States, or put up in jam and jelly. Last season we received orders for 62,000 more Himalaya plants than we had. This season we have 400,000 Himalaya plants ready for our customers, but the way orders have been coming in will need a million.

All our visitors, of whom we have a great number, claim that it is the most wonderful berry they ever saw. Mr. T. of Kansas City, Kansas, says: "It looks fine to me." He will plant ten acres. Geo. K. & Son., Sawyer, Mich., a berry grower of twenty-four years' experience, left an order for 5,000 plants. Judge L., of St. Paul, will plant at Washburn 2,500 Himalaya, 8,750 Whinham's Gooseberry, 8,750 Perfection Currants and other stock. Mr. H. W. G., Napoleon, Ohio, will send in a large order. Mr. Robert P. Hartwick, Mich., will start a berry farm. Mr. C., Kansas City, Kansas, left an order for enough plants to cover three acres. Mr. J., Cripple Creek, Col., sent in his third order for Himalaya and other plants—this one for \$100. He says Himalaya is doing fine with him. Mr. A., Detroit, Mich., will plant four acres. He came here twice. Mr. D., Bangor, Mich., got some plants last spring and will now plant three acres more. He comes to see us every year and says he wishes he had more

ground to plant in Himalaya, as he thinks it is the most wonderful berry he knows of. Mr. W., Rock Island, Ill., who owns 1,000 acres in Colorado, wants 2,000 more Himalaya plants and is thinking of dividing his Colorado land into 40-acre tracts, then planting two acres of berries on each forty.

We also had the pleasure of a call from Mr. Jefferson Thomas, Harrisburg, Pa., and from Prof. H. J. Eustace, of Michigan Agricultural College, East Lansing, Mich. He said of Himalaya: "It's hardy all right, but people are hard to make believe so." Another caller from Poultry Success, Springfield, Ohio, said that they will plant a great many of our berries on their experiment farm. A. Mitting says Himalaya is the most wonderful berry he has ever seen or grown, and that, from a commercial standpoint, it's the leader of all berries grown at the Berrydale Experiment Gardens. He has had forty-four years of berry experience. Mr. Geo. R. Row, and Mr. Walsh, of The Fruit Belt, Grand Rapids, Mich., the Proprietor of The Fruitman and Gardener, Iowa, and an old customer and florist, Mr. N. E. Dogolier, of Loveland, Col., made us pleasant calls. Altogether, during this last summer, we had close to 3,000 visitors. Most of these people came here to see what manner of place it was, and what kind of a berry Himalaya was "at home." That they were satisfied with what they saw is shown by the fact that while here they left orders for more stock than the total of all we sold last season. We wish, for your sakes, that you could come and see the Himalaya Berry in fruit, from July 20, to August 20, 1912.

And wishing you the greatest success that one man can to others, I remain,

At your service,

A. MITTING.



Three photos of a test Himalaya plant at Berrydale. Left, 11 months old (March); middle, April growth; right, 26 months old (July)



Himalaya berries grow in clusters, and can be picked by the handful. (Photo from 17-month-old bush)

Giant Himalaya Berries

This is the greatest small fruit introduced into America for a generation. It is entirely a new kind of berry-fruit—just as different from anything you have ever seen as raspberries, blackberries or strawberries are different from one another, and is, therefore, in a distinct class by itself. A proper comparison can not be made between Himalaya Berries and any others grown in this country, either in character, and hardness of plant, or in quality and abundance of fruit.

Unknown to the rest of the world, it had been growing for centuries in the Himalaya mountains, when a British military expedition went north from India into Persia and Thibet, found it, and brought back some plants. A Seattle firm brought the first plants into the United States in 1905, and since then Himalaya has been developed and tested until we know that for many purposes it is so altogether different and new and good that it is an invaluable addition to the fruits American farmers can grow. It seems as though many of our finest fruits must be discovered, and their delightful and valuable qualities brought to the notice of civilization, in some accidental manner, as this one was.

The Himalaya plant is a briary vine like a blackberry, and grows 40 or 50 feet a year unless trimmed. New growth starts from the ends of last year's branches and from last year's buds—from the old wood. No wood dies,—in this feature the plant is exactly like an apple tree or an oak tree. The old wood fruits every season, and keep on bearing year after year. When a year old and afterwards, the plant sends out side branches, 16 to 40 inches long, from the main canes. On these are borne the heavy crops. It must be understood at the start that Himalaya is a permanent "fruit tree," and lives as long as a pear or a grape.

When the berry was first introduced into this country, at Seattle, in 1905, there was some doubt about its hardness. It was hard to believe that here was a berry vine that was like a blackberry plant, but which, contrary to the habit of the best blackberries, did not winter-kill at all. Even after it

was generally known that the plant was a perennial, and that the old canes grew right on year after year, many people would not believe that the plant could live through the severe winters of northern United States. They thought that zero weather would kill it root and branch.

The only certain way to find out about this was to plant some Himalaya Vines in exposed situations and see what would happen. We planted acres, to make the test conclusive. In the five years that have elapsed, we have found not one inch of wood killed by frost, on all our plants—not even a tip has been frozen to death or stunted. Michigan winters are severe, the ground here is frozen from November till March, and the temperature goes down to 40 degrees below zero. Now we know that Himalaya is hardy anywhere in this country, and we have it fruiting finely, this year especially.

The rapid and immense growth of Himalaya has to be seen to be understood. One can almost "see it grow," our plants make on the average of 2 feet of wood a week, and a total average growth of 20 to 30 feet a year. Under favorable conditions, a Himalaya plant will grow over 50 feet in a single season, but a fruiting vine should be cut back to a workable size. This will also insure high-grade fruit. The vine will act much like a grape—if left alone it will trail on the ground, but should be tied up to supports, such as stakes, wires, trellises, walls, etc.

The plants are as hardy as oaks—no cold found in this country will kill even a tip. Several hundred thousand have been growing right here, and have come through five Michigan winters with not even an inch of wood killed by frost. Our tests have been conclusive on this point, and it is now a known fact that Himalaya Berry will stand the winters anywhere in the United States. If any one tells you differently, come to us and we will show you that plants come through the coldest cold to be found south of latitude 50°. Any visitor can see our big fields of Himalaya just as shown in the picture at the top of page 14.



The form and habit of growth of Himalaya makes it a splendid and most interesting ornamental

GIANT HIMALAYA BERRIES, continued

The native **home** of this plant is on the sun-baked slopes of the Himalaya mountains in Thibet. Naturally, hot and dry weather does not stunt it much; in fact, if the soil is kept moist, the hotter the sun the faster the plant will grow. Cold equal to that of the Arctic circle, heat of the tropics, dry seasons, lack of fertility and severe conditions generally that the Himalaya Berry has endured for centuries in its native land, have bred into every fiber of the plants a vigorous constitution that will withstand our hardest seasons and conditions, winter or summer, without damaging or killing. But like other plants that **produce heavy crops**, Himalaya plants need to be fed and cultivated for best results. They will respond wonderfully with right treatment in a good soil.

The plants have characteristics of raspberries, of blackberries, and of grape-vines and trees. The sprouts do not come up anywhere from the roots as blackberries do, but all start from one root. The berries are clustered on the outside of the bush, not in among briars. This commendable habit saves expense and trouble in picking fruit and in caring for plants, adds wonderfully to the appearance of a bush, or of a field when loaded with blossoms and fruit. The vines are a sight to be remembered when in bloom, with clusters of fifty to one hundred shell-pink flowers as large as half dollars, and they are even handsomer when the berries turn jet-black.

The berries are black but are not blackberries. They are borne in enormous clusters and ripen from time to time all summer, and on in the fall till frost comes. The yields are so large as to be almost unbelievable. But when we say that an average harvest is ten tons of berries from 500 plants, growing on one acre, it will give some idea. Each berry is an inch long, thick, meaty, melting, sweet, with almost no core, and unusually rich—there is no other fruit with which we can compare them either in appearance or in quality. Flavor and flesh are both perfectly adapted for making pies, jelly, jam, preserves and for eating raw. The natives of Central Asia made wine from them. Here is a suggestion for enterprising Americans. They need very little sugar in cooking, and do not spoil on the vines for many days after they are ripe.

They will stand long-distance shipping and much handling without loss of fine flavor and appearance. As is the case with some other kinds of berries, Himalaya does not grow stale or insipid after a few days in storage. The first blossoms come on our bearing plants about the end of June. We began to pick ripe berries on August 1, and continued getting good pickings almost until October—long after all other berries were gone. Our average yield is at the rate of ten hundred and forty-two crates, of sixteen quarts each, to the acre (of 500 plants, 10 feet apart each way). We get 12 cents a quart for these berries. The plants come to perfection in bearing in three years. Though needing trellis supports, they should be treated as a tree, and pruned accordingly for light, air and fruit stems. As an ornamental, the plant fully equals the best vines and plants which are used for that purpose especially. The immense growth, handsome blossoms and fruit, and general lavish effect attained in a short time, are valuable features to make use of on any grounds. The plants will make a solid hedge in two seasons. On trellises, over old walls, unsightly buildings, porches, or dead trees, the effects are handsome and wonderful. If the leading canes are trained to the top of a post, and then pinched back two inches, the plant will form a weeping tree, which can be kept to any height desired.

Growers will not have a fraction of the Himalaya Berries needed to meet the demand as soon as they become known to consumers. Every time they have been offered on markets, buyers have snapped them up at the highest price paid for any berries. The time of ripening is in favor of big prices, for they can be marketed when there are no other fresh berries to be had at any prices. Commercially, Himalayas cannot fail to attract the attention of those live growers who are looking for the fruit which will yield the most money. A Mr. Manor planted two stalks in 1907. In 1908 he picked thirty-one dollars' worth of berries from them, selling the whole crop for fifteen cents a quart. In 1909, from the same two plants, he sold fifty-four dollars' worth of berries. An acre of these berries will yield fifteen hundred to two thousand pounds of fruit at twenty-two months from planting. The

GIANT HIMALAYA BERRIES, continued

next season that acre will yield from five to ten tons or more, and each year afterward will show an increase over this.

We market many thousands of crates of these berries from our own fields of bearing plants. A preserving plant will go up here soon to make jelly, and preserves from the berries not used fresh. These products have already been put on the Chicago market. When they can be supplied in quantity they bring a dollar a pint at wholesale. An acre of Himalaya Berries gives us three times the net profit we can get from blackberries, raspberries or strawberries, giving all the best of care. Wonderful size, fine appearance, general adaptability, immense crops and great hardiness will appeal to any one who has space in which they may be planted. In a few years more Himalaya Berries will be grown more than blackberries and raspberries combined. They will become as standard as apples.

Here is a direct suggestion of the quality of Himalaya

Berries. Eldorado, one of the very best blackberries, has 40 per cent more water in the fruit than Himalaya. Two quarts of Himalaya will make as much preserves, jelly, jam or wine, as three quarts of Eldorado. And it takes five quarts of Himalaya to make the same amount of seed as three quarts of Eldorado.

In 1910 we sent out plants to over 1,400 people, and in 1911 to over 4,000 people, living in every state in the union. Many of these plants are now bearing, and every owner is satisfied. There is an overwhelming demand for Himalaya plants. Last year the total supply was exhausted weeks before the planting season was over. We will have several hundred thousand of the finest kind of strong-rooted tips for delivery next season, also we will have a smaller number of year-old plants. If you can, come to Berrydale and see our Himalaya "ranch," for our method of growing and cultivating is worth going miles to see.

Good Words from Satisfied Customers

Your fall catalogue received and send many thanks for it. My Himalaya tips and one-year old plants bought in spring have gone away beyond my expectations, some canes of one-year plants have grown 10 feet long and tips 13 feet long. Didn't put any wire up for tips as I never expected them to grow so tall. Would you cut down tips, in spring, to the ground, like one-year plants I received, or would you let them grow? Kindly let me know. Enclosed find two-cent stamp for answer. This week am going to put ends of canes in ground about 5 inches, as you instructed me this summer. I hope you have had a good, big season. Next spring will need some more plants of different varieties. Have fully made up my mind to buy five acres of land next spring near town. Hoping to receive a reply in near future, with all kinds of good luck to you, remain,—Yours respectfully, JOHN G. CARGILL, 2512 Clybourn St., Milwaukee, Wis.

Our Mr. David Knight reported very favorably on the Giant Himalaya berry after his call on you and we are anxious to see some of the ripe fruit. Are any of the berries now ripe, and, if so, could you send us a sprig with several of the berries attached? —Yours very truly, DAVID KNIGHT & SON, by A. R. Knight, Sawyer, Mich. (Party left an order for 5,000 Himalayas.)

I have been very much pleased in noting carefully the contents of your 1911 manual and it has caused me to do some right hard thinking. I sent to you for three roots of the Himalaya berry and they are all doing excellently. You can almost see them grow. It is possible that I will plant about three or four acres of this new berry if it continues to prove satisfactory. I am enclosing ten cents for which I wish you would send me a sample of the Himalaya fruit as I am anxious to become more fully acquainted with it.—Very truly yours, F. A. CHILD, Lehi, Utah.



In a properly cared for Himalaya field, berries are so thick that a bushel can be picked in a few minutes, without taking a step

How to Grow Himalaya Giant Berry

Unpack the plants as soon as they come and put the roots in a tub of water for an hour. If you are not ready to plant at once, heel in the plants by covering them entirely in damp earth. When you go to plant, put them in a pail half-full of water, and take them out of this one by one, as they are wanted.

Keep the ground clean all summer, and let the canes run on the ground the first season. About the first of September, with a sharp stick, put the pips of the canes 5 inches under the ground, to root. Leave everything alone till the first of the following May, then dig up the rooted tips and transplant. At that time prune the rest of the canes to within a foot of the ground. Do not let any canes fruit the first year. After pruning, get posts at least 3 inches thick, and 9 or 10 feet long, and put them in the ground at least 3 or 4 feet, leaving 6 feet extend out of the ground. On these posts put three wires, one 16 inches from the ground, one at top of posts and the other halfway between.

When the second season's growth begins to reach out, tie up the new growth every week, and let the canes grow to the top, then run along the top wire. About the first of August

stop tying the tips and let the canes grow to the ground. By September you can cover another crop of tips. The following May, dig these tips and tie up the canes from which they grew. Do this each season as long as you grow Himalayas.

Be sure to keep your rows as compact as possible. That is, keep the plants within workable and reachable size and limits. The second season you will get a growth of from 30 to 50 feet, and there will be a hedge 2 feet wide. Never let the rows get over 3 feet wide. If you keep them within this size, the branches will come to the outside of the row, making picking and pruning easy.

In the fall, after picking the berries, cut all fruiting branches back at least one foot. This pruning might be done in winter or spring, but is much better done right after fruit is removed. After the rows get 3 feet wide, do not tie up any more canes, but cut them off close to the ground. The Himalaya Berry bears fruit on the same wood for years, and is self-supporting in the Eastern states after the third year. You will find Himalaya the heaviest cropper, the hardiest vine and the best commercial berry in the world.

Good Words from Satisfied Customers

The Himalaya vines are growing so rapidly I have to get up nights to keep the branches trailing downwards.—Yours truly, C. O. REED, Koshkonong, Mo.

The Currant bushes which I received from you arrived in fine shape and after being compelled to keep them heeled-in for six weeks they were set out and have done very nicely. We picked five quarts of fruit from the 100 plants. The express was fierce, being \$3.75, but you sent such grand bushes, I would not have kicked if it had been more, but I think anything I order in the future I will get yearling plants. At your convenience, I would like a price on 100 Whinham's yearling gooseberry, also 25 of the

Golden Drop gooseberry. Also kindly let me know whether King Edward strawberry is earlier or later than the Marshall, also if it self-fertilizing, I mean can it be planted alone.—Yours very truly, J. FRANK RANDALL, Route No. 2, Seattle, Wash.

Not every thing in this world is money. A man's word of honor cannot be bought with all the money in the United States. You will realize this when you have grown the berries that I recommend for your location. Let my forty-four years of experience teach you.



Home of Giant Himalaya Berry—Central Asia. Mountains with everlasting snow, slopes baked dry by the hot sun in summer, frozen solid with 50 bitter degrees below zero in winter. Himalaya plants never winter-kill an inch in the United States



"King Edward is the finest thing that grows, in the Strawberry line"

Strawberries

The Strawberries growing in Berrydale gardens are standards. They are the cream of all, and have been kept here after hundreds of other varieties were tried out and discarded because they were not so good as these.

We experiment with new varieties all the time, now and then finding a good one. This is attractive and interesting work—for those who make it their business, which is exactly what we do. But it is very expensive, holds many disappointments and calls for endless patience. The man or woman who wants Berries, to eat at home or to sell, had better not try it. They should stick to standard, well-tried sorts, which are sure to yield lots of good fruit, and which will not perform some odd "stunt" in growth or bearing, or yield to disease or to insects. We do this pioneer work for growers, give them a chance to buy safe plants—and open up a clear road ahead of them, straight to big profits.

Strawberries are the most delicious of all berries, and at present have a wider and better market than any other berry. That a great deal of money can be made growing them is no secret. Any one possessing land, even a small lot, should not forget it. For gardens, for orchard fillers, for struggling farmers, and for home buyers, few other crops will yield so much money quickly, and country homes find the Strawberry bed one of the most attractive features.

King Edward

This new Strawberry, offered last season for the first time, should be tried by every grower of a dozen plants or of a hundred acres. We have seen King Edward growing for three years. It has been tested beside a hundred or more other varieties, and has proved superior to each and every one of them in every vital particular of plant and berry.

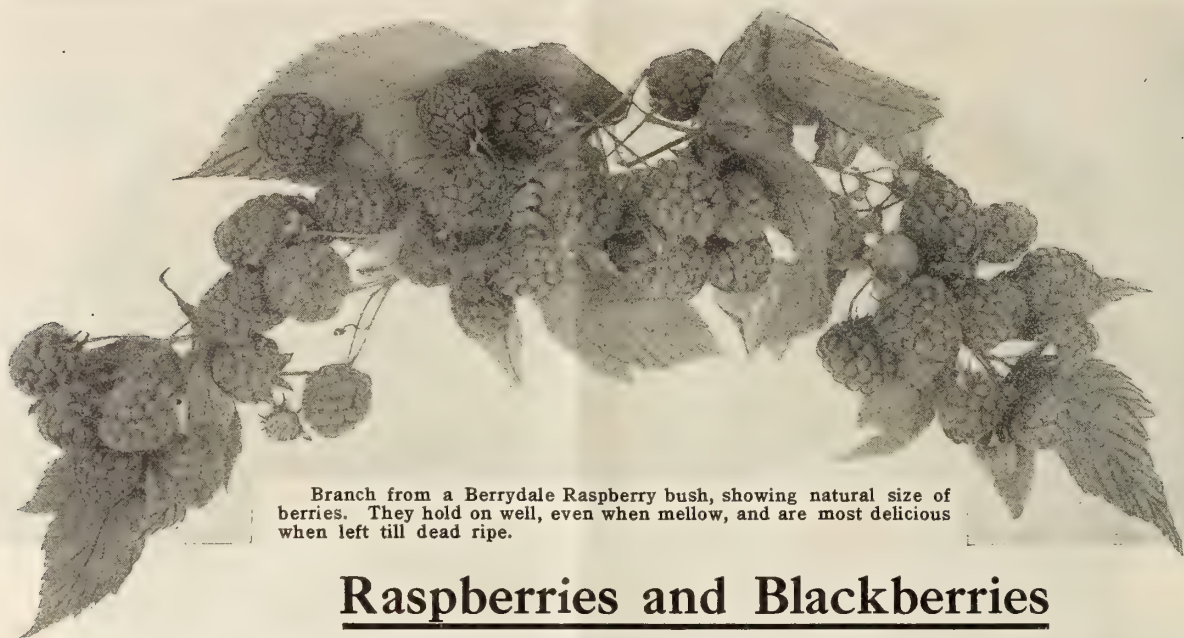
The largest commercial Strawberry growers from the Atlantic to the Pacific have grown it, and have harvested and sold crops of berries from it. Their reports are exactly in line with what we say here. It received a Certificate of

Merit from the Rhode Island Horticultural Society, in 1907, when exhibited by Mr. D. J. Miller, of Millersburg, Ohio, who originated it. Mr. Miller's latest remarks to us are dated July 10, 1910. He says: "It is the finest thing on my place, beyond a doubt, and my careful and deliberate judgment is that it is the most beautiful and the grandest Strawberry on the globe. This is true of it wherever Strawberries are successfully grown. When given a chance, it has no equal. Not the least of its merits is the vigor and sturdy health of the plants. They form runners and crowns to perfection, but do not grow so rank as to diminish the fruit crop or lower the quality of the berries. The foliage seems to resist disease and insects, with no blighting or killing."

The Ohio Agricultural Experiment Station Bulletin described King Edward as follows: "Large, conical, blunt, very slightly necked, regular, brightly-colored, fresh, glossy crimson, attractive. Flesh light in color, firm, fine-grained, mild, sweet, and good; blossoms perfect. First blooms May 7, full bloom, May 21; first fruit ripe, June 9; period of the heaviest fruiting, June 15 to 23. Last picking, June 26. This was at Wooster, Ohio. Plants large, vigorous, light green, making a beautiful row. A very promising variety, originating in Holmes county, Ohio, where it is reported to have done exceedingly well."

We are sure of our position in so strongly recommending this variety, as we have tested it very thoroughly ourselves and also carefully watched tests made by other growers. At Berrydale now, King Edward is easily the leading variety. We have lots of fine plants.

"I am pleased to report that it is the best I have worked in thirty-five years; free from rust and very vigorous. Very productive of most beautiful berries of large size, carried well. It was easily the best of thirty varieties I had growing in the same field, and I consider it the best all-round market berry that has come to my notice. . . . A. W. CLARK, Providence, R. I."



Branch from a Berrydale Raspberry bush, showing natural size of berries. They hold on well, even when mellow, and are most delicious when left till dead ripe.

Raspberries and Blackberries

Though the old canes die down each year, new shoots or tip-crowns come from the old plants, and setting anew is never needed. If the surface of the ground right up to the stalks is kept well worked or mulched or free from grass and weeds, and proper pruning done, crops will keep up to the limit in amount and in quality, with no trouble.

Golden Queen Raspberry

A seedling of Cuthbert red, bearing handsome light golden berries. There are several strains, of which we have selected by experiment one that is much the best. It is the most desirable yellow Raspberry.

The berries are large, very sweet and rich, with thick, firm flesh, and ripen toward the end of the berry season. They strongly resemble the Cuthberts. For home use few other varieties are as good, because the fruit holds together in canning, and because of the fine appearance of the fresh berries on the table.

As an indication of the quality, we have often noticed people eating berries from boxes or buckets full of red, black and gold kinds mixed. After tasting all, they would pick out the Golden Queens. The fine appearance and flavor of these berries always help to sell them quickly.

The bush is a strong grower, and is doing well everywhere. It stands our Michigan winters, without damage, and seems to go through southern summers very well. It is not a very tall grower, and does not sucker much. The big crops of fruit are borne on stiff side branches from the main canes. Our strain is especially strong in high quality, appearance of berries, and good behavior to plant.

Superlative Red Raspberry

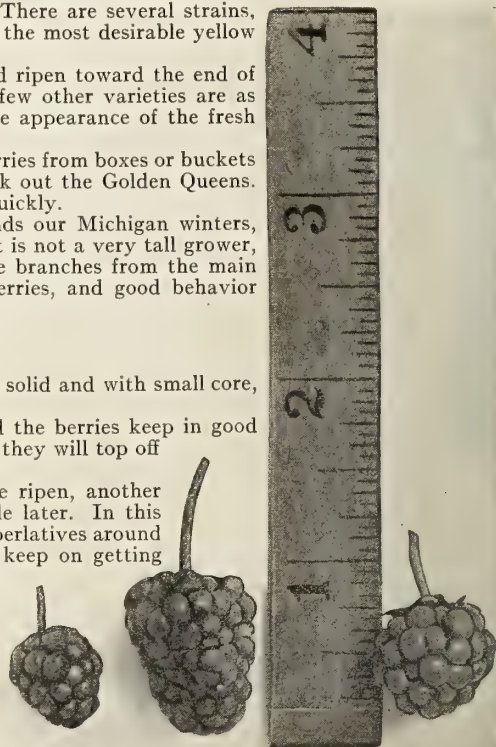
Velvety crimson berries, pointed, an inch long, $\frac{3}{4}$ of an inch through, solid and with small core, and standing upright instead of hanging down.

Flavor is sweet and most delicious. The flesh is thick and firm, and the berries keep in good condition a long time. They are the largest Raspberries we ever saw, and they will top off any meal to perfection, or are just as good for canning or preserving.

Each fruiting cane of our strain bears 400 to 500 berries. As these ripen, another cane (or two of them) is growing a similar load, which will ripen a little later. In this way bearing is continuous throughout the season. We begin to pick our Superlatives around June 20, several days before any other Raspberry is ripe here, and we keep on getting heavy pickings till about the first of August. Smaller lots are picked till the first frost comes.

The berries are easy to pick, fill quarts fast, and are money-makers commercially. Superlatives will give double the amount of berries to the acre that the old reliable Cuthbert will. The bush is very vigorous and starts many suckers. Canes are upright, grow 5 to 6 feet high, if left alone, are stiff and need no support. For best results they should be pinched when 4 feet high.

In 1907, we imported 5,000 plants for trial. They proved so far superior to any of our home kinds that the next year we imported 10,000. These were all quickly sold at 50 cts. each, and the trade



Superlative Red Raspberries are often an inch long



Golden Queen are the most delicious Raspberries that grow firm enough to ship

SUPERLATIVE RED RASPBERRY, continued

asked for twice as many more. 25,000 were grown here or were imported in 1909, and every one of these went to buyers in the first five weeks of the shipping season. Four times that number would not have supplied the demand. 1910 and 1911 have shown the same increases in the number of plants grown and in the demand for them. We are now raising all our own plants and following out our custom of propagating a selected and superior strain. We have great quantities of plants but it looks as if they will all be sold early. Let us hear from you now, so we can reserve plants for you.



Plum Farmer black Raspberries (greatly reduced)

Berrydale Scarlet

A brand new variety, different in many ways from any other grown. The berries grow in clusters of hundreds, and in hundreds of clusters. They are about $\frac{1}{4}$ inch in diameter—the smallest of any Raspberry—but have the most delicious flavor we ever tasted. There is almost no core. The aroma can be smelled as well as tasted, and the perfume reminds one of the flavor of wild Raspberries. Flesh is so soft and juicy that it melts up like creamy candy. This makes shipping impracticable. Canes are red, grow 4 feet high, are self-branching, hardy, fast-growing, and soon make a heavy row. For home use it is one of the berries a farmer or gardener must not neglect growing.

Plum Farmer, Black

Fruit not jet-black, but handsome, dark, grayish brown which will not fade. Size immense—diameter often an inch. Ripens early, and 90 per cent of the crop can be picked during a period not longer than four or five days. No Raspberry has finer flavor. Plants are models of growth—healthy, vigorous, sturdy. When not in leaf they are silvery blue, and are very handsome in a garden or bordering a lawn. In brief, the largest best-colored, most attractive, and most productive Black Raspberry is cultivation.

Mammoth Blackberry

Bears the largest berries we ever grew—all of $1\frac{1}{2}$ to 2 inches long—and jet-black. Ripens long before any other Blackberry we have. Flavor tart, rich, and sweet—wholly unlike that found in any other small fruit. Berries sell well, and are favorites with many particular eaters. In our section the plant is a little tender. Best success is had by growing the new canes flat along the ground all summer, so tips will root.

Other Varieties Not Described

We grow nearly all standard sorts of Blackberries, Raspberries, Dewberries, Currants, Gooseberries, and Grapes. Those not familiar with any kind wanted should write to us about any varieties, if they want them.

Please ask us about any kind not listed in this book.



Typical Biskoop Giant Currants (reduced)

bushy tops. Our strain has been developed

Currants

Currants, especially Black Currants, are becoming more popular as their great general usefulness is better known. We remember when celery was first grown in the United States, in 1876. In a very short time every garden and farm all over the country had its celery rows. The growing of Black Currants is spreading in the same way now. We were surprised to receive an order from one farmer for 5,000 Currant plants last season. But he had merely found out that in Europe Currants are a standard small fruit and that they are a coming fruit here. The next few years will see millions of Currant bushes planted.

Perfection Currants

Berries medium to large, bright red, borne on big, dense clusters on long stems, which makes picking easy. Flesh meaty, with plenty of pulp when eaten raw or when cooked. Flavor rich sub-acid, with no musky flavor while fresh—when eaten with sugar and cream the berries taste like sweet cherries.

The berries cook up splendidly and make the very best preserves, jelly or jam. As the flesh of the berries is firm, the skin tough, and keeping qualities pronounced, Perfection Currants ship so well that they are seen more often than any other variety on city markets.

The bush is a healthy, sturdy grower, and gets quite large in a very short time. It will mature nearly all the fruit the branches can hold up, but if this is thinned the berries will be larger and finer. No seasons are skipped—crops come every year. The bush seems to thrive nearly everywhere, and no special soil nor fertilizer are needed to get good crops.

Perfection has won more prizes and has taken more medals than any other red Currant. It won a gold medal at the St. Louis Exposition, and at a Western New York Horticultural Society show won the grand prize in competition with all leading varieties. We have good two-year-old plants, single stems and

Biskoop Giant Currant

Handsome black berries, $\frac{1}{2}$ inch in diameter, with rich, sweet flavor. As they ripen all at once, one picking will get the whole crop. Full maturity and color come early, but berries hang on bushes in perfect condition a long time after ripening.

The bush is a vigorous grower. It has the peculiarity of yielding a crop of uniformly large and fine berries **every** season, no matter whether the soil be rich or poor or whether there is much or little rain. In a rich soil and with plenty of moisture much wood will be formed, but not at the expense of the usual crop of high-grade fruit. In a thinner, dryer soil, the bush will be smaller, with just the same amount and quality of fruit.

On account of the attractive color and the firm, pulpy flesh, these berries are exceptionally well adapted to canning and shipping. We have a great many bushes fruiting here at Berrydale, and all the berries produced sell for good prices. In the neighborhood of Chicago, Ill., and of Rochester, N. Y., other large plantings of this variety have been made with much success and satisfaction. A very large number of these plants were set out in the spring of 1911 and the satisfaction which they gave will result in a strong demand for Biskoop Giant this fall and next spring. We have good one-year old plants—a selected strain that we know is superior.

Burbank's Giant Crimson Winter Rhubarb

Rhubarb is the first vegetable we can use in the spring. A half-dozen plants will supply a large family with all they can use throughout the season, if the right variety is planted. When once established, plants will last almost a lifetime.

Burbank's Crimson Winter Rhubarb is the best we have ever tested at Berrydale, and is one of the greatest and most valuable novelties we have ever offered. Stalks are of good size, (about an inch in diameter), good length, and handsome crimson clear through. Quality is simply superb.

Skin is so thin and so tender that it does not need to be pared. Flavor is very mild, acid is not strong. Color and texture of flesh is especially fine-looking when cooked. It is the earliest of all Rhubarbs and can be used from the middle of May until frost comes in the fall.

As fast as the stalks are pulled, new ones grow in their place. In Southern and Pacific states it may be used all the year round, requiring nothing but water in dry weather.



A tree currant makes a most attractive lawn specimen, and a row of them in the garden is well worth having



A hedge of Dorothy Perkins Roses at Berrydale Experiment Gardens. Has become a feature of the neighborhood

Profits in Berry-Growing

As every berry plant we sell is intended to ultimately produce fruit for **someone**, no matter who buys it from us, we think that the following points will be interesting to our trade. They are good arguments for buying plants, and they are good things to point out to any man, **since they are true**.

We want to drive it home to every man who reads this catalogue, that berries are one of the best paying crops—that here is an occupation that will yield big money—more than many of the highest-paid lines of work.

It is hard for a farmer who has become more or less reconciled to very, very small pay from the work he does on his land, to realize that right at home is an open road into a business which pays high wages. We want this man to grasp the fact that it is “up to him.” Big land-owners and business men who want to “work” their money, seem slow to understand that such a common thing as berry-growing has wonderful possibilities for profit.

Our records show that we have \$742 net each year from every acre in berries. Expense to us for growing and selling has been less than apples or peaches cost growers in Colorado, Oregon, Washington, West Virginia, etc., where those fruits are so immensely profitable.

In comparison with general farming or with stock raising, berry-growing yields as much net income from five acres as corn, hay and cattle will from a hundred and sixty acres. Five acres with three planted to berries, and two for buildings and other uses, will not cost so much as a big farm and will require as much year-round work. The income from this “little” big business is better than that of the average butcher or grocer in a town, and far above that of average wage-earners.

Berries will yield a big crop in twenty months from planting. They are just as long-lived when once started, and require no more cultivation, or other care, than tree fruits. It takes an apple tree at least eight years to yield a full crop. Six crops of berries are had before apple trees will begin to bear, when both berries and trees are planted at the same time.

It would take a lot of money to keep a family during that eight years’ wait, and to those who are making their living and paying for their home, the early yields will come at a much-needed time. Some reasons why American farmers grow more peaches, apples and pears than they do berries,

are that more nurseries are raising trees, while few are growing berry plants. Trees are widely advertised; berries are not.

Apple-, peach- and grape-growing is now the big industry in many sections, and each is immensely profitable. Yet with berries there is more net profit on the cost of growing, on time used, and from the area planted, than with large fruits, and Himalaya berries, raspberries and blackberries have this one advantage over even strawberries, that they are practically everliving and do not need to be replanted every two or three years.

Six years ago the price of berries was nine to ten cents a quart. Equal grades now sell for fifteen to twenty cents a quart, with half the varieties scarce all the time. The price has gone up a cent each year during the last nine years, and, as it shows no tendency to stop even now—only those who have independent incomes will be able to afford berries after a few years, if proportionately more are not produced.

It is costing more every year to live. New ways of putting up food are found from time to time, and new food laws are going into effect every year. But these do not cut down the cost of food. That is an item which will steadily call for more money from city and country people alike. A way to increase the income, and to decrease the outgo, must be found, and berry growing is not far from the easiest and most effective way to do both at once.

It is necessary to plant new varieties of berries if the yield and quality are to be kept up to the highest point. Old varieties will not keep pace with the new ones, and the grower who depends on them is going to find that other growers are harvesting more berries with an equal amount of labor, and from the same area. Also he will find that others are marketing better looking berries of finer flavor and quality. Profit lies on the margin between “the best” and the “ordinary.” And it is just as easy to grow one as the other, if planting and care are done on right lines. But it is one thing to plant berries and quite another thing to give them the proper care after they are planted. Every planting is surely profitable and offers an easy entrance into “easy street” for the farmer, yet it is not “something for nothing,” and it does require work and applied brains. No trade or profession will pay higher wages, nor prove more interesting, than berry-growing.



Picking scene at a three-year-old Himalaya field. Crates by the hundred are needed to hold the crop

Berries for Health and Pleasure

The strongest possible argument you can use to get a man to buy and plant berry plants, is to convince him of the fact that the daily use of the fruit on his table will mean many per cent added to the amount of energy he has for work and for pleasure, and many additional months to his life. That our ideas along this line may reach the "consumer" of our plants, we give them here.

"Gold in the morning, silver at noon, lead at night." This old saying contains the idea about eating fruit which was accepted for several hundreds of years. In the time of our great grandparents and long before, fruit was thought to be "pure gold," but in the morning. Or probably it was only in the morning that they knew it was valuable, for our ancestors seem to have had many curious ideas and many imaginary fears mixed with that sound common sense for which they are now so honored.

For instance, in those days folks would not drink any more water than they could help, because it was thought to be "weakening." They drank wine instead, with the real result that in the morning, after a period of sleep, and with the stomachs rested from stimulants, fruit seemed good to them. But later in the day, after they had imbibed more or less "strengthening" liquid, the finest berries or apples or grapes failed to have any charm, and were a heavy load for the jaded and whipped-up stomachs, even though fruit is the easiest of all foods to digest, and should tax the stomach very little.

All kinds of fruit, and berries especially, are now known to be wholesome and helpful to digestion when eaten at any meal. It is seldom that folks eat too much fruit—generally too little. Proper use of fruit will keep the blood pure, and the inside of the body clean. Those men and women whose sensible parents "raised them on fruit," and who now eat lots of it every day, will live years longer than those who eat an excess of highly concentrated foods, rich in protein. Strong foods, like meat, nearly always cause trouble—more and more of it as the eater grows older. Dyspepsia, headache, ill-temper, irritability, rheumatism, disease of liver and kidneys, etc., can be traced directly to these causes—those enemies of good health and of long life—too much stimulating good and too little fruit and water.

Seven people in ten do not know what it is to live. They are never at their best. Life for them does not contain nearly all the good things it should, or could, simply because of a sluggish brain and a "striking" stomach. Proper eating of fruit and drinking of water would mean far more vigorous intellects, more energy, more happiness, longer lives and better health for sixty million people of this nation. It would mean enjoyment where there is now worry and punishment; keenness in place of dullness; and it would mean that work which now takes all the strength and time at command would be done easily and quickly. Bright minds and strong bodies depend on proper eating, right drinking, and correct breathing of pure air. And fruit ranks in importance with fresh air.

When berries are fresh picked, they are clean. They do not have sand or dirt driven into them as they have after long-continued handling and hauling through dust of all kinds. Fruit exposed to the germ-laden atmosphere of a town is bound to gather much dirt, which unfits it for food. Berries cannot be washed without largely destroying their flavor. When bruised by improper packing and handling, as are many of those offered for sale in city markets, they become stale and have lost most of their fine flavor. Many city people do not know what virgin berry flavor really is.

Those who do not can their own berries usually have to do without, for it is seldom that they can be found on the market in this form. Even on the rare occasions when a housekeeper can find a grocer who is able to supply canned and preserved berries, she has to watch that her much-prized purchase is not put up with glucose sugar.

This form of sugar could be made pure and harmless. But it is a secondary product, made from the refuse of pure sugar and inferior to real sugar. But the matter does not end there. Little care is taken in the making to keep glucose clean and free from dirt. In order to lower the cost, some manufacturers have taken to making it with the help of sulphuric acid. So, whenever this form of sweetening is used, or is present in preserved or canned fruit, it means that the product is a cheap one, inferior to what it should be and of a quality far under that of home-canned berries. Plant your own berries, and know what you are eating.

The Cultivation of Berry Plants

Deep, moderately sandy or clay loam, carrying an abundance of humus, will give the best results with berries. Raspberries will give better results on a light soil. Blackberries favor heavier loam and more clay-like soils. The soil should not be too wet, for plants can be easily drowned out. Soil requirements are, therefore, a moist, well-drained sandy loam, well sheltered.

In starting the berry patch, it should be remembered that the work is not done for one season only, that berries are not annuals, but that the plants are set out to remain for many years. Therefore no pains should be spared in preparatory work. It is well to commence preparation a year before. Break up the patch, deeply, fertilize well, and plant hoed crops for a year. Keep the weeds down and have it in excellent shape before planting the Raspberries. The ground should be plowed deep and cross-plowed, smoothed and leveled. This work can be done only once, and it always pays to start right.

The instructions given for planting one berry will apply in setting out all. The plants should be far enough apart to admit a horse cultivator between the rows, say from 4 by 6 to 6 by 8 feet, depending on conditions. Plants should be set a little deeper than they were in original beds, but not so deep as to cover the crowns much. Roots should be spread about in a circle. The best plan is to set the plants in the bottom of a shallow furrow, and fill in as they grow larger.

Red Raspberries are propagated from suckers, which appear in abundance around the hills. Black Raspberries, in the main, are tip-rooters. They are propagated by rooting the tips of nearly mature canes during late summer months. The ends of canes are covered lightly with earth. A mass of fibrous roots and a well-developed crown soon form. The old canes are then cut off and a new plant is ready for setting out. Purple varieties are hybrids produced by crossing the

reds and the blacks. These may be propagated either by suckers or by tip-plants. In setting out, only strong, healthy plants should be selected. Those from young plants are usually more hardy than those produced by old ones.

Cultivation needed for Raspberries and for Blackberries is about the same. Keep the ground well stirred and hoed. Cross-cultivation will save much hand labor. As the roots are near the surface, cultivation should be shallow. Running the teeth too deep tears up roots and damages the plant. Cut out the old wood or canes, of the previous season's growth, as soon as they have borne fruit, for they die anyway each fall, and are of no use after berries are picked. The canes grow each season for the next. Not more than four to six of the strongest new canes should be left for bearing. It must be borne in mind in pruning that the stalks are then prepared for next season's crop. By pruning early in the fall and burning the wood removed, we destroy large quantities of insect eggs and fungous spores, which, if left longer, have good chances of escape and of infesting the young wood. But ordinary pruning may be done any time the plant is dormant.

Tip pruning may be practiced during the growing season. This consists of pinching off the tips of the growing canes when they have reached a height of three feet, and afterward pinching off the laterals. This forces the plants to grow strong and bushy. As all the plants do not develop at the same time, it will be necessary to go over the bushes several times.

The soil, cultivation, and general care needed by berries and by flowering plants is the same in all essentials as that for Raspberries and Blackberries. The elements which go to make any plant thrive are fertility, moisture, light and space. A rich soil which will retain plant food, and at the same time is not soggy, will produce the finest fruit and the finest flowers. Plenty of humus must be in the soil. Nitrogen, phosphoric



A three-year-old Himalaya plant has just reached its best period, and is as good for as many years as any fruit tree, if properly cared for



Our method of rooting tips. Plants left run on ground all summer, then tips are buried in fall. Note that one cane held up has grown thirty feet this summer

THE CULTIVATION OF BERRY PLANTS, continued

acid and potash, the three elements which plants get from soil, can best be supplied in the form of commercial fertilizer where the area is less than an acre or two.

In the United States it seldom gets so dry as to stunt the growth of plants, providing proper care be taken of the surface of the soil immediately after rain falls. A crust should never be allowed to form. Frequent shallow cultivation will keep an inch of fine dirt or dust mulch on the surface. This will be dry as powder, but the soil below it will be full of moisture. Growing plants need plenty of space for their

roots and for their branches and leaves. The sunlight must reach every part of the plant if it is to thrive and remain healthy.

Weeds will rob the roots of the fertility they should get, and also crowd the branches above and shut out the sun. Too many plants of the kind cultivated are exactly the same as weeds. By bearing in mind the points concerning moisture, fertility and light, any one can succeed in growing the very finest plants, and in making them yield highest grade fruit year after year.

The Future of American Agriculture By C. S. FUNK

Parties may rise and fall, cities perish by earthquake or conflagration, banks may fail, business may stagnate, and we may suffer all the ills with which civilization is afflicted, but so long as the earth can be made to produce sufficient food a nation will not perish.

The future of agriculture gives full play to the widest flights of the imagination. Up to this time, our farming methods have been largely of the hit-or-miss variety.

We have had an abundance of good land and have not felt the crowding of population, which is so serious a problem in the older countries. Our indifferent farming methods of the past have been sufficient because the population to be supported was small in comparison with the area of tillable land, but with population growing by leaps and bounds through immigration and natural increase, and with our acreage remaining the same, we must learn to conserve the fertility of our land or our descendants will pay for our negligence and waste.

It is estimated that within fifty years we shall have to supply the wants of over two hundred million people. While hundreds of thousands of these folks will seek homes on the land, the vast majority will congregate in the cities and will have to be fed and clothed by the products of the same number of acres of land as were available when Columbus discov-

ered America. It has been estimated that the acres now under cultivation "do not produce one-half of what the land might be made to yield without losing an atom of its fertility." We know little or nothing of intensive agriculture such as foreign farmers are compelled to practice.

A small English farm which has been growing crops for upwards of a thousand years will produce twenty-five or thirty bushels of wheat per acre, whereas thousands of our farmers with much better soil are producing half that amount per acre. A German farmer will easily raise three times as much in dollar value per acre as an American farmer. The Japanese, with their little garden-like patches, get results out of comparatively barren land which would astound the average farmer of our country. Every foot of his soil grows something and there is absolutely no waste. The French farmer enforces a rigid economy on his farm, loses no time, fertilizes his land faithfully, and farms on a rigid system. Belgium, Switzerland, and many of the smaller countries, supply ten times more people to the square mile than we care for under our present methods.

The future of agriculture in the United States depends very largely upon the brains of its farming population. This means that the farmer of the future must be a business man, and he must conduct his farm upon a business-like basis.

A Little of My 44 Years' Experience

As I travel all over the United States, I often come across people who are sick of being mere "runners on the road." Many a lawyer, judge, merchant and professional man wishes he had a place in the country, and knew what to plant and how to go about it so that he could make an independent living there. These people are tired of city life and realize that there is something better for them on the green and brown hills beyond the ends of the streets.

The people who are willing to help themselves are the ones I want to help. As the years pass, I see more and more plainly that the Lord gave us our hands to work with, and our brains to think. He did not mean that we should use one only. We should think of the simple things. We should live the easiest way. But we don't seem to want to do this, and we keep looking for secrets that will make the way easier. There is where the trouble lies, for there are no secrets and everything is easy in this world, if we only open our eyes to it.

When a man is rich and making lots of money, he has many friends. But when he is poor, the first of these friends may give him a loaf of bread, but I doubt that the second will. So it's up to you to be a judge of your own affairs, to do your own thinking, and to put yourself in such a position that you will be in no danger of starving some day, physically, morally or mentally. Get a business you can be proud of; make your business your hobby; and you will make money and be happy. I do these things, and I know how it works.

Each year we bring to this country from across the water over Three Million Dollars worth of nursery stock. This, with the millions of dollars worth that is grown at home, is planted and most of it made to produce fruit in a few months or years. There is an enormous growing demand for fine fruit all over the world, while the production is actually no more than holding its own. If, instead of farm boys and men going to cities and mills, they would go to a nursery or orchard and learn the business, they would soon be able to start for themselves, and become independently rich a good deal quicker than they possibly could in any other work. And if, instead of struggling on in a city with an income that is too small, people would buy a place in the country, either large or small, and grow fruits, they would find life easier, healthier and happier, and would be able to provide good homes for themselves as long as they live.

The best soil a grower of fruits can have is a sandy loam.

Here is how I would go about picking my location. Find an eastern or southwest slope and go about half-way up. If you get too high, you will lack moisture, if too low the ground will be damp, and spring frosts will catch the blossoms. Air drainage is necessary for a successful fruit farm. An exception to the general rule is that peaches do well on hill-tops. New land is the best of all, and when you find it, walk over it and look for brakes, or bracken. (Some call them ferns, but this is not correct.) Brakes will grow only on rich, sandy loam, which is exactly what you want, and the more brakes the better the soil is likely to be. When I first came to Holland and bought Berrydale, people said it was the poorest, sandiest soil around. Now they ask: "How do you do it, Mr. Mitting?"

If the ground is new, clean off brush during winter and have it ready to plow as soon as spring opens up. If you have selected cultivated land, plow it the fall before and let it lie rough over winter. Do not plant your fruit this first spring. Keep the ground in as nice shape as possible—deeply

and thoroughly mixed, packed so there are no air-spaces, very fine, and smooth.

Plant no less than five acres of one variety of berry if you want to go into it commercially. By having five acres of one kind, you can bring the buyer to your door, where if you have small mixed plantings of several kinds, you will have to hunt the buyer. If you wish to peddle your product, get at least five acres of ground. Plant three acres in berries and use two acres for buildings and stock lots. You can make a good living from such a place. If you want to know how it is done, the writer will tell you what to plant and help you all he can. Do not use any fertilizer when you plant fruits. Wait until the following year, then sow a ton to the acre of air-slaked lime. Lime is needed to sweeten land, or correct acidity, to destroy insects and as a fertilizer to a certain extent. If your soil is sour and full of poisons, it is unfriendly to roots, and in it no plants or trees will thrive or bear fine fruit. Other fertilizers can be added as needed, in the form that is cheapest and easiest to apply.

When trees and plants come, unpack them and put the roots in water, unless they are frozen, then they should be gradually thawed out in a cold cellar. If not ready to plant, heel-in roots, tops and all. When starting to plant, see that roots are so wet that soil will cling to them. Trees should go an inch deeper than the graft mark, plants the same depth they were before, which can easily be told. Plant in as long rows as possible, to make cultivation and working easier. Keep the newly planted ground cultivated clean from early spring till frost comes. No matter whether you have weeds or not—keep stirring the soil. Hoe along each side of berry rows, dig around trees. Do this early in spring and later also. After hoeing, get a hand-rake and rake each side of the rows. Use a slant-toothed harrow or a drag between the rows. Keep this treatment up all summer, going over the ground every ten days as near as you can, unless it rains and afterwards bakes a crust on the surface, when you must go over sooner. Do not let a weed get two inches high. Remember that you are preparing the plants or trees for next year's crop, as well as finishing up this crop. In berry-picking season, better get extra pickers and let the regular help go on cultivating.

Moisture is the great need of nearly all fruit plants, and the grower's problem is to get enough of it. Irrigation is

practiced in many sections, but it is expensive and, furthermore, is not needed except in a few of the western states. Proper cultivation will keep moisture in the soil to an extent few appreciate. The sun and the dry air draw moisture from the ground whenever a crust is allowed to form on the surface. But if you break up this crust, and keep a two- or three-inch layer of dry dust on the surface, the moisture cannot escape. It is the same where there is a board or a stone on the ground—there is damp earth underneath. Get this dust mulch on the surface early in May, and keep it there all summer. Harrow as soon after a rain as the ground begins to dry and keep the water for the use of the trees and plants. Forget about weeds and think of moisture, and you can raise a big crop if there is no rain from spring to fall.

Always cut out all branches which have borne fruit, right after harvest. Insects lay their eggs in the fruiting wood, which dies and is of not more use to the plant. If you let the old canes stand till spring, the eggs will



An 18-months-old Himalaya plant ready to ship to you. Will bear next summer

A LITTLE OF MY 44 YEARS' EXPERIENCE, continued

hatch, but if this wood is burned the eggs will be destroyed. If you allow no dead wood or trash to stand or lie about your place, you will not be bothered very much with insects, providing you plant clean, healthy stock.

People should go to nature for lessons on pruning. Notice that a tree in its wild state, when growing out in the open where it gets lots of air and sunlight, has limbs right down to the ground. Then why should we trim fruit trees 5 or 6 feet high. The sun should never directly strike the stem of a tree, or the bark anywhere, during the growing season. This would interfere with the flow of sap, as well as with other things. Leaves are meant to shield the bark, to absorb light, and food from the air. They feed the tree just the same as roots do, and they keep the branches cool. A good, rich crop of foliage is necessary if the tree is to thrive and grow, and produce fruit that is worth while.

Plant one year trees only, and those that have an upright habit of growth should be cut down to no higher than a foot or fifteen inches. Cut on a slant which faces the north, as the sap flows more on that side of the stem, and the wound will heal quicker than if the cut was on the other side of the stem. This cutting back should be done about a month after

planting, or just as the sap begins to flow. Plan the head of the tree right there and then. Leave only three or four branches, growing in the right directions, and prune to form a hollow center, or open head. Cut out all cross limbs each season. (NOTE.—Weeping growers, such as Burbank plum, should have a three- to four-foot stem left.) Peaches should have half of each year's growth cut back in the spring, as well as all dead twigs cut out.

Study the habits of growth of the trees you plant. Ask the nurseryman what they will do and how to handle them. Thousands of trees all over the country would be alive today, and bringing the owners great profits, if they had been properly pruned and cultivated and sprayed. Instead of this, the orchardists forgot or ignored the spraying, pruned them wrongly or not at all, and made a pasture of the orchard. The cattle or horses, to keep flies off and to find a cool place, gathered under the trees, tramping the soil so hard that it would crack in the summer. I have seen these cracks so wide that you could put your hand in them. Think what the effect of this is on the trees—drying them out at the roots, just when they ought to be growing. Trees die under such treatment

Good Words from Satisfied Customers

I received my order so promptly and in such good order I am going to send for another dollar's worth. I have a fine place for them. I have one acre in dewberries and blackberries, which are doing fine; they have been bearing three years. I have made very good money out of them. Glad I was able to set out one acre in the Himalaya Berries. I just fell in love with them.—Respectfully, W. W. SCHEW, Atascosa, Texas.

Himalaya plants came in fine condition and are growing nicely. I may get over and see the raspberry plants when they are in fruit. I do not suppose that this will be for some weeks though. Very truly yours—H. J. EUSTACE, Michigan Agricultural College, East Lansing, Mich.

We received, last week, the plants for our botanic garden—two gooseberries, one currant and one Himalaya berry. They are certainly magnificent plants. If you handle such stock regularly, you ought to have a large patronage! The specimens were of much interest to my class in horticulture. We set them at once in the garden and are watching them eagerly. With best thanks, I am, sincerely—HENRY S. CONARD, Grinnell College, Grinnell, Iowa.

The Himalaya plants came, for which I thank you; they were in good condition and seem to be doing well so far. My large plant, put out some time ago, is doing fine; it is fixing to bloom and I hope will bear this summer. Thanking you again for the plants, I am, very respectfully—MRS. R. O. TUCKER, Nashville, Tenn.

If not too late in the season for successful planting, send me a couple of Giant Himalaya Berry vines and I will remit the price. Ten summers spent at Macatawa Park gives me confidence in anything that comes from Holland. Yours truly—C. E. GAR-RISON, New Mexico College of Agr., Agricultural College, N. M.

Am glad to report the plants doing excellently. The Himalaya Berry is about to bloom, having made several shoots 2 feet long. The currant bloomed a little and has made a large growth. The gooseberries are growing slowly, but seem all right. They were unusually large bushes when received. May I ask if that is the kind of stock you regularly send out, and what is the price of such plants? Thanking you again for the gift, I am sincerely yours—HENRY S. CONARD, Botanist, Grinnell College, Grinnell, Iowa.

CERTIFICATE OF NURSERY INSPECTION.

NO. 1115

This is to Certify, that I have examined the nursery stock of.....

Berrydale Experiment Gardens

and find it apparently free from dangerous insects and dangerously contagious tree and plant diseases.

This certificate to be void after July 31, 1912

L. R. Taft
State Inspector of Nurseries and Orchards.

Agricultural College, Mich.,

Sept 25 1911.

Mitting's Golden Drop Gooseberry

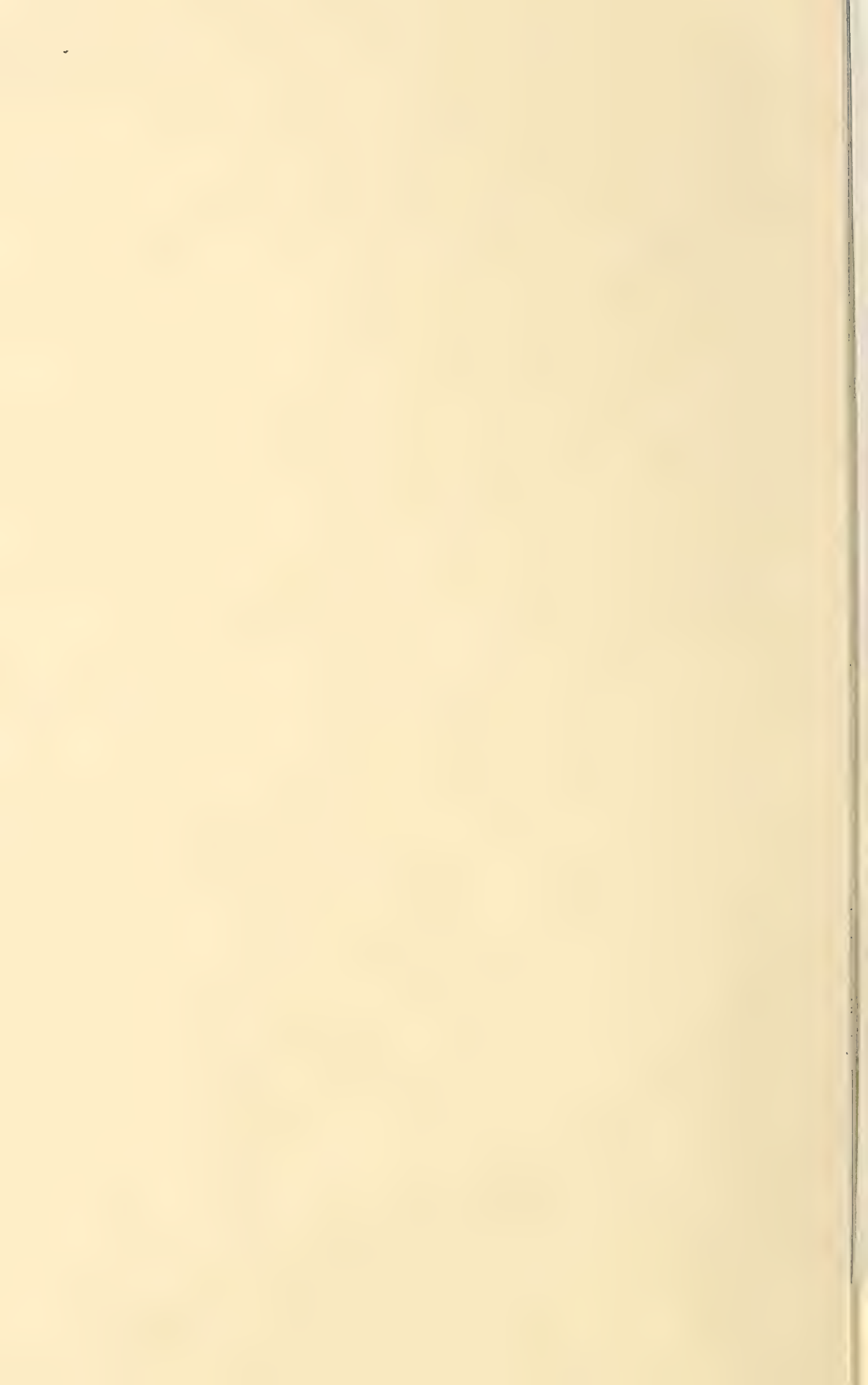


ABOUT the same size as an early **Rich-**mond Cherry, with thin, golden yellow skin, so nearly transparent that the seeds can be seen when the berry is fully ripe. Flavor rich and sweet. Though not suitable for canning, they are extra good for every other purpose. It ripens early—in Michigan from June 15 to July 4, coming before red Raspberries. Plant very compact, with heavy, dark green leaves. We have never noticed mildew on the foliage. Bushes get large in a short time. Strong, in single-stem form—Mitting's selected superior strain. Our 1911 crop sold to Thomas Cannery Co., Grand Rapids, Mich.

Mitting's Whinham's Gooseberry is shown inside of front cover. Turn to it.

Mitting's Whinham's Gooseberry is shown in full colors, and is fully described, on the







My hedge of Dorothy Perkins Roses—the finest thing in the neighborhood

Making Two Thousand Dollars From a Five-Acre Berry Farm —and My Fall Price-List

How would you like to own a five-acre berry patch that puts \$2,000 in the bank every year? Looks good, doesn't it? On this basis your berry patch would be worth at least \$7,000 an acre, or \$35,000 for the place.

Down in Norfolk county, Massachusetts, there is a fruit farm of only five acres which has netted over \$2,000 a year. The owner purchased the rough land about six years ago and planted berries and currants. For the first two years he lived in Boston and ran the fruit farm "on the side."

You can have such a place—if you make the start this fall you can begin to bank some of the profits next summer. I know you cannot invest your money in any business that will give a higher, safer, or steadier income than berry-growing.

You will want a good assortment of fruit, and I advise Himalaya Berry, Plum Farmer Black Raspberry, Superlative Red Raspberry, Golden Drop Gooseberry or my strain of Whinham's Gooseberry, and Perfection and Boskoop Giant Currants.

My Berry Book tells about the wonderful Himalaya Berry, the greatest small fruit ever grown in this country. The second season after planting, an acre of these berries should yield fifteen hundred to two thousand pounds of fruit; the next year it should yield ten tons or more. Our average yield is 16,600 quarts to the acre—and we sell the berries for twelve cents a quart.

Plum Farmer is the best black Raspberry I have ever grown. The fruit is immense—often an inch in diameter; the color is dark, grayish brown; fruit ripens early and most of the crop can be picked during a period of four to six days.

Superlative Red Raspberry is far ahead of any kind I know. The berries are velvety crimson, an inch or so long, solid, and with a sweet and delicious flavor. They ripen here about June 20, which is several days earlier than any other variety.

The two Gooseberries are illustrated in colors and described in my Berry Book, so I am not going to say much about them here. Visitors to the Gardens say that both varieties are the finest they ever saw.

Perfection Currant is probably better known than any other sort. I have grown it for a number of years and have found it to be a sure bearer of large, bright red berries; the fruit is easy to pick, for the berries grow in big clusters.

Boskoop Giant is a prize-winning black Currant. The fruit is big and black, half an inch or more in diameter, with a sweet and pleasant flavor, and ripens all at once, so that one picking will get the crop.

On the next page you will find a description of a five-acre berry farm, with the cost of the plants. On the third page I show my idea of the planting. My Berry Book will tell you more about the profits of berry-growing, caring for the plants, and about the varieties I sell and recommend. If your copy has been lost, send for another and start your berry farm this fall.

What It Takes to Make a Five-Acre Berry Farm

On the opposite page we show a good ground-plan for a five-acre berry farm. You can see the entire arrangement, and we believe the illustration will show you exactly what we have in mind. Notice the house and the barn.

There are hedges of Himalaya Berry at the sides, with roses and shrubbery in front. Over in the corner is a pasture, and all the rest of the farm is given up to berry fields and gardens, except a quarter-acre, which is reserved for chicken-houses and yards.

Now the cost of such a five-acre farm as this is very little. The price of land and houses varies in the different localities, so we won't attempt to make an estimate. You could rent a place if you wished, because berries come into bearing in one year.

The layout provides for a half-acre of strawberries in the garden, which would take 7,620 plants, set 1 x 2 feet apart, and would cost \$20. There is one acre of Himalaya plants, set 10 feet apart, 500 plants, cost \$17.50. The Himalaya hedge, about 70 rods long, would take 500 plants more, worth \$17.50. Then a half-acre of Superlative Red Raspberries, set 2 x 5 feet, 2,177 plants, would cost \$52.80; a half-acre of Plum Farmer Black Raspberries, 2,177 plants, would cost \$21.77; a half-acre of Red Currants, Perfection, 5 x 5 feet, 871 plants, \$34.64; a quarter-acre of Black Currants, Boskoop Giant, 5 x 5 feet, 435 plants, \$21.75; a quarter-acre of Gooseberries, Whinham, 5 x 5 feet, 435 plants, \$43.50; 100 rose plants, Dorothy Perkins, for the hedge fence, \$5; and finally fruit and other trees and shrubs for the front yard, orchard, garden, chicken-yards, etc., \$100. The total of all this is \$334.66.

Where can you put this amount of money to better advantage? If you lived in a town, \$300 would keep you about three months, and is but a drop in the bucket so far as buying and maintaining a home is concerned. But such a five-acre berry farm is all you need to make a living. And the living can be compared only with the grade of living of the salaried man in a town who gets over \$1,500 a year and spends it all as he goes. Some five-acre berry farms net \$2,000 a year. It takes work, but almost any grower can live and put by \$1,000 or more every year.



Two-year Himalaya Plant



Himalaya vine that grew over 30 feet and won \$25 prize

you look at it. If you have a copy of our catalogue handy, look through it again, and see if you don't find something you want. We will appreciate an order, no matter how small. The plants you get will start you in berry-growing, and help you along to success.

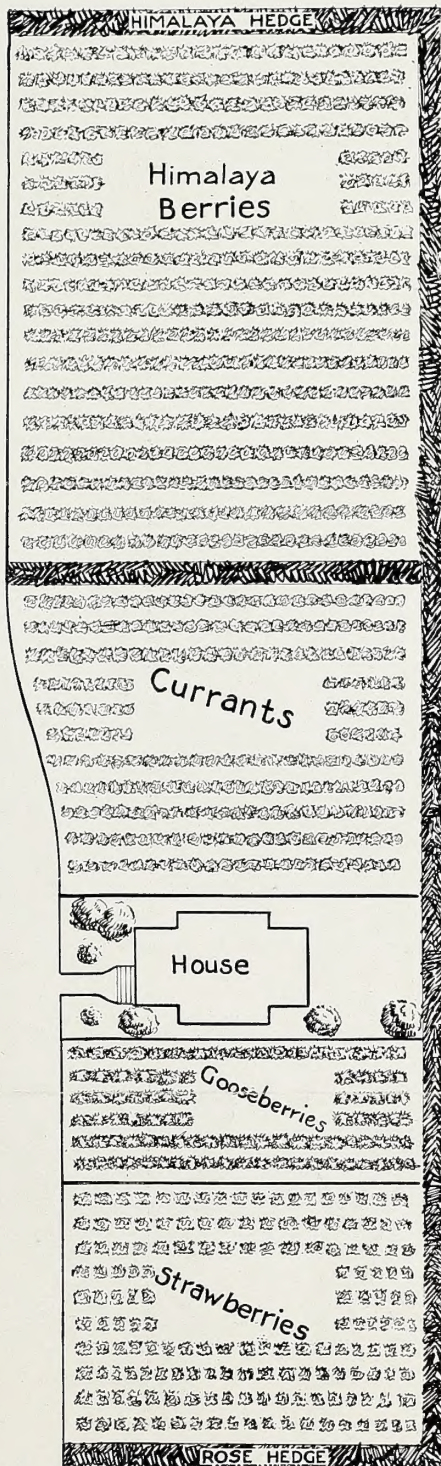
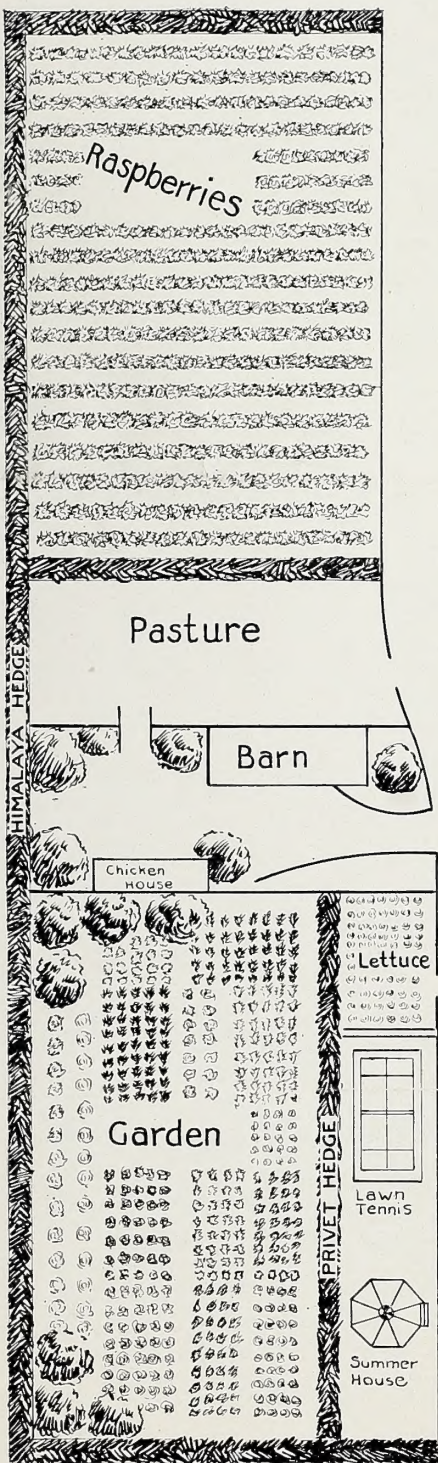
A. MITTING, *Owner*

BERRYDALE EXPERIMENT GARDENS, HOLLAND, MICHIGAN

Where You Come In

The story of berry-growing interests you, doesn't it? But I want you to be more than entertained—I want you to be convinced that you ought to plant some berries this fall, as many as you have room for. It will pay you to put your time on them. I know they will make money for you, and give you a lot of satisfaction. My work has made the way easy, and I have the very best plants waiting for you here at Holland.

We grow berry plants and we grow them to sell. But we grow berries also, and we are doing everything we can to get others to grow them. It's a great work, we think, any way



How five acres may be divided for good results. Such a farm business can be started for less than \$400



The kind of two-year trees I supply

FALL PRICES, 1912

	Each	Doz.	100	1,000
GIANT HIMALAYA BERRY. 6 months old.....	\$0 20	\$1 00	\$4 00	\$35 00
12 months old.....	30	2 00	6 00	50 00
GOOSEBERRY, Mitting's Whinham. 2-year.....	25	2 50	12 00	100 00
Golden Drop.....	25	2 50	12 00	100 00
CURRENT, Perfection. Best red. 2-year.....	20	1 50	6 00	50 00
Cherry. 2-year.....	15	1 25	5 00	40 00
Pomona. 2-year.....	15	1 25	5 00	40 00
Red Dutch. 2-year.....	15	1 25	5 00	40 00
White Dutch. 2-year.....	15	1 25	5 00	40 00
Boskoop Giant. 2-year.....	25	2 00	12 00	100 00
Black Naples. 2-year.....	20	1 25	6 00	50 00
Tree Currants. 4 feet high, bushy tops, 3-year.....	1 50	10 00		
RASPBERRY, Plum Farmer.....	05	50	1 50	10 00
Superlative. Red.....	10	1 00	2 50	20 00

THE CREAM OF TREE FRUITS. We handle the highest grade of trees only. True

to name, healthy, and vigorous. All 1 year old.

	10	100	1,000
APPLE, McIntosh. Red.....	\$2 50	\$25 00	\$250 00
PEACH, Mayflower. 3 to 5 feet.....	1 50	12 50	100 00
PEAR, Bartlett.....	1 75	15 00	110 00
CHERRY, Black Tartarian.....	1 75	15 00	110 00
PLUM, Burbank.....	2 00	18 00	110 00

ROSES. For hedges.

	Each	100	500	1,000
Dorothy Perkins. Shell-pink.....	\$0 05	\$5 00	\$25 00	\$50 00
White Dorothy Perkins.....	05	5 00	25 00	50 00
Lady Gay. Cherry-pink, shading to white.....	05	5 00	25 00	50 00
Blue Rambler.....	05	5 00	25 00	50 00

50 plants or trees at 100 rates; 500 at 1,000 rates. All plants and trees are sent by express or freight collect, except from one to two Himalaya plants, six months old, which are sent by mail. Order now.



A field of Himalaya berries back of my house. These prove to me what the berry really is

